

[0113] What is claimed is:

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1. A sequence management apparatus for backing up data across a plurality of clients, the apparatus comprising:

a client request module configured to receive data to be backed up from a source client;

a sequence module configured to generate a non-transparent sequence of a plurality of target clients; and

a packet storage module configured to store the data on the plurality of target clients according to the non-transparent sequence.

2. The apparatus of claim 1, further comprising a global profile management module configured to manage a metadata file, the metadata file descriptive of the data backed up on the plurality of target clients.

3. The apparatus of claim 2, wherein the data file is selected from the group consisting of a global client profile, a source client profile, a source data record, a target data record, a data assembly record, and a global backup log.

4. The apparatus of claim 2, wherein the global profile management module is further configured to use a unique data identifier corresponding to the data to map the data to the source client, the unique data identifier indicating a uniqueness of the data as compared to other data.

5. The apparatus of claim 4, wherein the global profile management module is further configured to map the unique data identifier to a second source client on which an identical copy of the data is stored.

6. The apparatus of claim 1, further comprising a packet retrieval module configured to retrieve at least a portion of the data backed up on one of the plurality of the target clients in response to a restore request from the source client.

7. The apparatus of claim 6, wherein the packet retrieval module is further configured to retrieve the at least a portion of the data backed up on one of the plurality of the target clients according to the non-transparent sequence generated by the sequence module.

8. The apparatus of claim 1, further comprising a data assembly module configured to assemble the data in a comprehensible format in response to a restore request from the source client and subsequent to retrieval of at least a portion of the data backed up on one of the plurality of target clients.

9. The apparatus of claim 1, wherein the packet storage module is further configured to separate the data into a plurality of data packets and to store the data packets on the plurality of target clients.

10. The apparatus of claim 9, further comprising a compression module configured to compress the data within the data packets prior to storing the data packets on the plurality of target clients.

11. The apparatus of claim 9, further comprising an encryption module configured to encrypt the data within the data packets prior to storing the data packets on the plurality of target clients.

12. The apparatus of claim 9, further comprising a redundancy module configured to create a redundant data packet of at least one of the data packets prior to storing the data packets on the plurality of target clients.

13. The apparatus of claim 12, wherein the packet storage module is further configured to store the redundant data packet on one of the plurality of target clients according to the non-transparent sequence.

14. The apparatus of claim 9, wherein the packet storage module stores the data packets on the plurality of target clients according to a packet proximity parameter, the packet proximity parameter defining at least one of a minimum and a maximum distance between a first target client and a second target client.

15. The apparatus of claim 1, wherein the packet storage module stores the data on the plurality of target clients according to a backup proximity parameter, the backup proximity parameter defining at least one of a minimum and a maximum distance between the source client and each of the plurality of target client.

16. A client for backing up data across a plurality of clients in conjunction with a sequence management apparatus, the client comprising:

a network interface configured to communicate with the sequence management apparatus;

a storage configured to define an allocated storage; and

a client backup manager apparatus configured to manage a backup operation using a unique data identifier and a non-transparent sequence.

17. The client of claim 16, wherein the client is a source client configured to initiate the backup operation and generate the unique data identifier for the data.

18. The client of claim 16, wherein the client is a target client configured to store at least a portion of the data in the allocated storage in response to a data storage request from the sequence management apparatus.

19. A system for backing up data across a plurality of clients, the system comprising:

- a network communications channel;
- a source client connected to the network communications channel and configured to initiate a data backup operation;
- a plurality of target clients connected to the network communications channel and configured to store at least a portion of the data; and
- a global sequence manager connected to the network communications channel and configured to store the data on the plurality of target clients according to a non-transparent sequence.

20. The system of claim 19, wherein the global sequence manager is further configured to store a single copy of the data corresponding to a unique data identifier and to map the single copy of the data to the source client on which the data is stored and to a second source client on which an identical copy of the data is stored.

21. The system of claim 19, further comprising a subscription manager configured to manage a contractual subscription of each of the source client and the plurality of target clients.

22. The system of claim 21, wherein the global sequence manager and subscription manager are further configured to track a source storage allocation parameter of the source client.

23. The system of claim 21, wherein the global sequence manager and subscription manager are further configured to track a target storage allocation parameter of each of the plurality of target clients.

24. The system of claim 21, wherein the global sequence manager and subscription manager are configured to track a resource allocation parameter.

25. The system of claim 24, wherein the resource allocation parameter is selected from the group consisting of a network allocation parameter, a client processor parameter, and a client bandwidth parameter.

26. A subscription manager for managing a contractual subscription of a subscribed client within a grid computing system, the subscription manager comprising:

a network interface configured to communicate with the subscribed client;

a subscription module configured to receive a grid application initiation request from the subscribed client and to allow the subscribed client to initiate a grid application on the grid computing system; and

a fee module configured to calculate a client subscription fee and to request payment of the client subscription fee in accordance with a the contractual subscription.

27. The subscription manager of claim 26, wherein the grid application is a grid backup application.

28. The subscription manager of claim 26, wherein the fee module is further configured to calculate the client subscription fee based at least in part on a client usage history over a specified time duration.

29. The subscription manager of claim 26, wherein the fee module is further configured to calculate the client subscription fee based at least in part on a client resource allocation parameter defining a client resource allocated to the grid computing system.

30. A method for backing up data across a plurality of clients, the method comprising:

receiving data to be backed up from a source client;

generating a non-transparent sequence of a plurality of target clients; and

storing the data on the plurality of target clients according to the non-transparent sequence.

31. The method of claim 30, further comprising managing a metadata file descriptive of the data backed up on the plurality of target clients, the data file comprising one of a global client profile, a source client profile, a source data record, a target data record, a data assembly record, and a global backup log.

32. The method of claim 30, further comprising separating the data into a plurality of data packets and storing the data packets on the plurality of target clients.

33. The method of claim 30, further comprising using a unique data identifier corresponding to the data to map the data to the source client, the unique data identifier indicating a uniqueness of the data as compared to other data.

34. The method of claim 30, further comprising managing a contractual subscription of the source client and the plurality of target clients.

35. The method of claim 30, further comprising tracking a resource allocation parameter, wherein the resource allocation parameter is one of a source storage allocation parameter, a target storage allocation parameter, a network allocation parameter, a client processor parameter, and a client bandwidth parameter.

36. A method for backing up data across a plurality of clients, the method comprising:

requesting data to be backed up from a source client;

receiving data to be backed up from a source client;

separating the data into a plurality of data packets;

generating a non-transparent sequence of a plurality of target clients;

storing the data packets on the plurality of target clients according to the non-transparent sequence.

using a unique data identifier corresponding to the data to map the data to the source client;

managing a metadata file descriptive of the data backed up on the plurality of target clients;

tracking a resource allocation parameter, wherein the resource allocation parameter is one of a source storage allocation parameter, a

target storage allocation parameter, a network allocation parameter, a client processor parameter, and a client bandwidth parameter; and  
managing a contractual subscription of the source client and the plurality of target clients.

37. A computer readable storage medium comprising computer readable code configured to carry out a method for backing up data across a plurality of clients, the method comprising:

receiving data to be backed up from a source client;  
generating a non-transparent sequence of a plurality of target clients; and  
storing the data on the plurality of target clients according to the non-transparent sequence.

38. The computer readable storage medium of claim 37, wherein the method further comprises managing a metadata file descriptive of the data backed up on the plurality of target clients, the data file comprising one of a global client profile, a source client profile, a source data record, a target data record, a data assembly record, and a global backup log.

39. The computer readable storage medium of claim 37, wherein the method further comprises using a unique data identifier corresponding to the data to map the data to the source client, the unique data identifier indicating a uniqueness of the data as compared to other data.

40. The computer readable storage medium of claim 37, wherein the method further comprises retrieving, according to the non-transparent sequence, at least a portion of the data backed up on one of the plurality of the target clients in response to a restore request from the source client.

41. The computer readable storage medium of claim 37, wherein the method further comprises assembling the data in a comprehensible format in response to receiving a restore request from the source client and subsequent to retrieving at least a portion of the data backed up on one of the plurality of target clients.

42. The computer readable storage medium of claim 37, wherein the method further comprises separating the data into a plurality of data packets and to store the data packets on the plurality of target clients.

43. The computer readable storage medium of claim 42, wherein the method further comprises storing the data packets on the plurality of target clients according to a packet proximity parameter, the packet proximity parameter defining at least one of a minimum and a maximum distance between a first target client and a second target client.

44. The computer readable storage medium of claim 37, wherein the method further comprises modifying the data prior to storing the data on the plurality of target clients, wherein modifying the data comprises one of compressing, encrypting, and duplicating at least a portion of the data.

45. The computer readable storage medium of claim 37, wherein the method further comprises storing the data on the plurality of target clients according to a backup proximity parameter, the backup proximity parameter defining at least one of a minimum and a maximum distance between the source client and each of the plurality of target client.

46. An apparatus for backing up data across a plurality of clients, the apparatus comprising:

- means for receiving data to be backed up from a source client;
- means for generating a non-transparent sequence of a plurality of target clients; and
- means for storing the data on the plurality of target clients according to the non-transparent sequence.